

ABSTRACT

An apparatus and method for performing automatic exposure and gain control while minimizing oscillations as well as providing a good response time, for example, a lag time or a settling time of about one frame. The automatic exposure and gain controls are performed not only on the image as a whole but on a weighted region of interest. If the contrast in the image exceeds the dynamic range of the sensor array, then the image in the region of interest will improve at the expense of the remainder of the image. A region of interest is a selected subset of tiles upon which automatic exposure and gain control will be based. The tiles are defined by a grid system having grid coordinates, which are programmable. Image sensors have to receive feedback with regular updates of exposure and gain settings based on ever changing light conditions.